

	Day One	Day Two
Total Output	13 miniature kete	13 miniature kete
Productivity	$13 \div 9 = 1.4$	$13 \div 8 = 1.6$
	(output \div workers)	(output \div workers)
Total cost	$13 \times 9 = \$117$	$13 \times 8 = \$104$
	(wages \times workers)	(wages \times workers)
Average cost per unit	$117 \div 13 = \$9$	$104 \div 13 = \$8$

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Day 1: On the first day of producing miniature kete we made them individually. This would be compared with the second day producing them using division of labour and specialisation. The materials were in our working area. These were harakeke (flax) gathered following Ngāti Kahungunu tikanga (Māori protocol), pāua shells, knives, scissors all gathered from local areas and from home, so no cost involved.

There were four steps in producing the miniature kete. The first step was to split the harakeke into even, thin strips, then measured and cut to same lengths; the second step was to soften the flax strips using a pāua shell or the back of a knife. The third step was to make two small handles from twisted harakeke. The final step was to weave the kete and weave the handles into the top. We did not eat or drink in the room where we were weaving, and washed our hands after we had finished, removing any sap before eating kai.

Day 2: on the second day the process was divided up into separate tasks (division of labour). Everyone was put into a group per task and this was expected to increase productivity with specialisation. Two people were put into step 1, step 2, step 3 and step 4. The waste harakeke was returned to the area it was gathered from, and we made sure all the kete started were finished.

From this experience I learned that division of labour can be more effective than producing a kete individually. The benefit of division of labour is that the process becomes quicker and more efficient as workers learn their different tasks and become specialised. This is not what occurred in our kete production, it could have been more efficient if there was better organisation of the production process.

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I found it difficult to have quality control as everyone didn't discuss or see a model of the final product, therefore our final kete varied in quality. I also found it difficult to complete a kete at a fast rate. To make a reasonable income and profit we would have to sell each kete at a higher price than \$9 to cover the average cost and make a profit. It is unlikely that people would buy this product at this price and quality.

I noticed that at the start the workers doing steps 3 and 4 were waiting a few minutes while the other workers on steps 1 and 2 were doing their part. To improve this we could all have split the harakeke and then got into the separate tasks. The output per person increased a little and the total costs and average cost decreased. The price to sell these would be over \$8 to earn a profit as well as cover the cost. The quality of the kete improved however the total output remained the same as the first day of production.

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We only produced that amount as there was lack of communication and at times the majority of workers were waiting for the other tasks to be completed. Producing miniature kete was good as we were able to give our first ones as gifts and keep the other ones. The money we could have earned would have been donated to charity. If miniature kete making was put into a business this could provide jobs for students at the school and they would earn an income. Providing jobs (from the business) would increase the cost, as workers would have to be paid the minimum wage per hour (\$13).

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If our business was to switch from labour intensive to capital intensive this would increase the cost at the start as we'll need to cover the machine and the rent to put the machine(s) in an appropriate place. If we were capital intensive we could guarantee the final product was consistently high quality and have high productivity. Further on in the production the productivity would start to improve which means the costs of production would eventually decrease because the average cost would decrease as our business increases in size and output increases, this is economies of scale.

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If our business was capital intensive then many worker would lose their jobs, and not being labour intensive would be the opportunity cost and not provide jobs for the community.

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In reality the future of having a business that produces and sells only miniature kete wouldn't be successful. The best way to make this business successful would be to also produce other goods to add value to the kete or vice versa, but our business would still be small. Our goal could be to provide employment, use local materials and be a non-profit business or charity, not profit maximisation.

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Example: In the second production process we only had 8 people instead of 9 which reduced our total labour cost to \$104 and therefore our average cost as well.

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Our productivity improved from 1.4 to 1.625, so we produced the same amount of kete (output) with 1 less person, so division of labour did work and the quality of miniature kete improved as we all became better at doing the tasks (more specialised).

With better organisation and more practice we could have actually made more kete with just 8 people, so our productivity could have been 2 per person with an output of 16 miniature kete per hour and average cost could have dropped to \$6.50...